Mattawoman Creek Water-Quality Monitoring Program
Progress Report
U.S. Geological Survey

Reporting Period: October 1, 2002 through March 31, 2003

Cooperating Agencies: Charles County Maryland Government
U.S. Geological Survey (USGS)

Project Personnel: Brenda Feit Majedi, Project Chief, USGS
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Progress During Reporting Period:

1. A total of 52 water-quality samples were collected at Mattawoman Creek near Pomonkey, Maryland (01658000), and include those listed below. All samples were analyzed for nutrient and suspended-sediment concentrations at the USGS National Water Quality Laboratory (NWQL).
   a. Seven base-flow samples were collected, one each during the months of October through February and two during the month of March.
   b. Thirty-nine stormflow samples were collected over five separate storm events that occurred in October, November, December (two) , and March.
   c. Four quality-control samples were collected, including one field blank, two cross-section versus automatic-sampler comparisons, and two replicate samples.
   d. Discreet samples for turbidity were collected beginning in January, and sent to NWQL for analysis.

2. The real-time water-quality monitoring equipment for continuous measurements of pH, specific conductance, water temperature, dissolved oxygen, and turbidity was deployed in the stream in early March. The installation was delayed due to weather conditions and equipment-programming issues.

3. Began continuous monitoring of water-quality data in mid-March for pH, specific conductance, water temperature, dissolved oxygen, and turbidity.

4. A project web page was established. This site contains graphs showing the relation of precipitation, discharge, and nitrogen, phosphorus, and suspended sediment concentrations for each quarter for water year 2001 and 2002. The precipitation data appear on a separate graph, while the nitrogen, phosphorus, and suspended-sediment concentrations are shown with discharge. The site can be accessed at: http://md.water.usgs.gov/watershed/9B211/index.html

Plans for Next Quarter:

1. Continue to collect and analyze discreet water-quality samples for nutrients and suspended sediment during base-flow and storm-flow conditions.
2. Continue to monitor continuous water-quality data for pH, specific conductance, water temperature, dissolved oxygen, and turbidity.
3. Real-time reporting of the continuous water-quality data will be tested internally. Once this process is complete, the values will be available on the web (by mid to late April 2003). These data will be available at the following web site as well as at the project web site listed above:
   http://md.waterdata.usgs.gov/nwis/uv?dd_cd=01&dd_cd=02&dd_cd=05&dd_cd=06&dd_cd=07&dd_cd=08&dd_cd=09&dd_cd=10&format=gif&period=7&site_no=01658000
4. Arrange site visit with Charles County Government representatives.